

influence on the career path of health professions could play a role in changes in the supply of the health professions workforce. Also, the reorientation of the delivery system to a more integrated team approach that de-emphasizes the role of the physician would reduce the staffing requirements of physicians, especially specialty physicians, and increases the need for mid-level providers (IOM, 1996). According to Weiner (1993), putting a quantitative figure on the impact of (all these) factors on physician requirements is extremely difficult.

Need As Defined by Managed Care

An example of the extrapolation method of forecasting is a model developed by Jonathan Weiner (1994) that relies on the staffing patterns within managed care plans to extrapolate the needs of the overall population. The heavy emphasis that HMOs are placing on NPs and PAs influences the staffing projections. According to national reports, an estimated 60% of all NPs and PAs are practicing primary care. Based on the assumption that 40% to 65% of Americans will be receiving their health care from an integrated managed care delivery system by the year 2000, Weiner predicts that there will be an overall surplus of about 165,000 patient care physicians; 2) the requirement and supply of primary care physicians will be in relative balance but the supply of specialists will outstrip the requirement by more than 60% unless training patterns are modified.

Weiner's projections are based on national estimates and several assumptions. Different regions of the country have varying degrees of managed care market penetration and the Southeast region of the country has significantly less managed care market penetration than other parts of the country. According to AARP (1994), only 6.6% of the total North Carolina population was enrolled in an HMO in 1993 (ranked 36 out of 50 states). Almost 10% (9.9%) of the Medicaid population was enrolled in some sort of HMO arrangement while only 0.4% of the Medicare population was participating in 1993. Weiner's forecast should be used with caution in projecting the workforce requirements of North Carolina health professions because an assumption that 40%-65% of North Carolinians will be enrolled in managed care by the year 2000 seems unlikely. Despite the fact that the enrollment into HMOs has increased significantly in recent years, this large of a jump seems unrealistic.

Applying the HMO-model approach to North Carolina can provide an estimate of the numbers of physicians and other primary care providers the state will be able to support given that the population is served primarily by managed care systems.